

ART. IX.—*A short Account of the School of Ophthalmic Surgery in Vienna.* By W. R. WILDE, M.R.I.A., Honorary Member of the African Institute of Paris, Corresponding Member of the Imperial Society of Physicians in Vienna, &c. &c., Surgeon to the Dispensary for Diseases of the Eye and Ear, Frederick Lane.

THE high and justly celebrated character that the School of Ophthalmic Surgery in Vienna obtained for itself above half a century ago, the many esteemed oculists it has brought forth, and the reputation it now enjoys of being the first of its kind in Europe, lead us to inquire somewhat as to its first foundation, its early history, and the means by which it has been raised to its present eminence. It is remarkable, that while ophthalmology is, and has, for so many years been cultivated with such marked success in Austria, the general practice of surgery is in a state so low, that one of the grades of those licensed by its universities and lyceums to practise that branch of the healing art, is compelled by law to keep a barber's shop, whose interior may be learned by a glance at Teniers' graphic illustration of a Dutch surgery.

In 1745, Van Swieten commenced the foundation and arrangement of the medical department of the Viennese University, under the auspices of the Empress Maria Theresa. The widely-spread fame of the learned pupil and commentator of Boerhaave, together with the encouragement then offered to men of science and literature to settle in the Austrian capital, soon attracted there some of the most distinguished characters in Europe.

In 1750, Nicholas Joseph Pallucci, an Italian physician, born in 1719, and already celebrated as an oculist and lithotomist, was brought by Van Swieten from Florence to the University of Vienna, and may fairly be said to have laid the foundation of the Ophthalmic School there; for although he was not a public teacher, yet the works he published on affec-

tions of the eye, and his expertness as an operator, generated a taste for that department of medical science, that has gone on increasing to the present day. Pallucci was opposed to the extraction of cataract, but depressed, it is said, with much facility and marked success. He invented a new instrument for this purpose, a kind of trocar, not unlike a cistatome, concealed within a sheath; and with the stilet of this he readily depressed. It was an instrument almost peculiar to himself, and soon fell into disuse. He was the first who removed with a forceps an opaque capsule through an opening in the cornea, an operation now frequently performed, especially by Professor Jäger, who, however, uses a hook instead of the forceps invented by the Italian. Pallucci died in 1797.* His first work that appeared upon the new method of depression, was published in French at Paris, in 1750, and probably procured him that reputation that recommended him to Van Swieten; it was afterwards reprinted in German at Leipzig, in 1752;† his second edition in Italian was published in Vienna, in 1763. In 1762, he put forth a large octavo in Latin, on the cure of fistula lachrymalis; his other works are on the operations for calculus and polypus nasi. Notwithstanding the labours of Pallucci, the present professors of the Viennese School claim Joseph Barth for its founder, he being the first public teacher of ophthalmology in the Austrian dominions.

Barth was born in the island of Malta, in 1745, and studied medicine at Rome, and afterwards at Vienna. When but eighteen years of age, he was appointed Professor of Anatomy to the University under Stöerk, the successor of Van Swieten. The anatomical school of the Austrian capital acquired considerable renown at that period from possessing the valuable microscopic preparations of Ruysch, Lieberkühn, and Albinus, purchased by

* *Geschichte der nueren Heilkunde von Dr. J. F. C. Hecker—Zweites Buch. Dei Wiener Schule, von 1745, bis 1785.*

† *Beschreib. eines neuen Instruments, den Staar mit allem nur möglichen Erfolg niederzudrücken. 8vo. This instrument is figured in Blasius.*

Van Swieten for the University; they were committed to the keeping of Barth, and the opportunities they afforded him for studying minute anatomical structure were eagerly laid hold of, and tended in no little degree to his future advancement.*

This tradition is current in Vienna; a lady attached to the court of the empress becoming blind, was pronounced amaurotic by the medical advice called in; her malady continuing to increase the Baron Wenzel was sent for, and at once declared it to be cataract; and operated on it with success. So amazed was Maria Theresia at this display of Austrian surgery, that she forthwith established a special lectureship of ophthalmology, and Joseph Barth was the first that filled this chair, in 1773; and in 1776 he was appointed oculist to Joseph the Second. He was a most expert extractor, and there are still living several who have witnessed his operations—the invention and use of Beer's knife (that now so generally adopted) is in a great measure due to him; for although his was longer in the blade, and somewhat broader toward the handle, yet it was upon an enlarged scale the same. The objections to it, of its pricking the nose from the great length of its point, and its not cutting itself out (as it is termed) with facility, is now obviated in that introduced by his pupil Beer. His mode of operating was remarkable; he did not require an assistant, (and was perhaps the first who did so), but placing the patient standing in the corner of the room near a window, he opened the lids, and fixed the eye with one hand, while he passed his knife through the cornea with the other, as is now so dexterously performed by Mr. Alexander; but different from that most distinguished oculist he stood *before* his patient.† It is needless to add that he was ambi-

* Several of these most beautiful preparations still remain in the University museum; those of Luberkühn in particular, now in the keeping of Professor Berris, are, notwithstanding all our modern improvements, some of the finest injections in existence; they are only equalled by those of our esteemed friend, Professor Hyrtl, of Prague.

† Ehrlich, *Chirurg. Beobachtungen*. Th. I. S. 34.—und *Salz medic. Zeitung*. Jahr, 1797. B. 2, S. 33. The first of these was published at Leipzig in 1795.

dextered. Barth wrote upon anatomy, and published sixty-one plates of the muscles in Vienna, 1786. His operations are to be found in the works cited below. He also wrote a small treatise on cataract, (*Abhandlung über die Ausziehung des grauen Staars*) in 1797. It is strange, that none of the writings of Barth are enumerated in Engelman's catalogue. He died in 1818, his portrait bespeaks him a man of noble and prepossessing appearance, and his *ad captandum*, but engaging manner and address, added to his acknowledged talents, procured him many admirers.

Cotemporaneously with him lived Joseph Mohrenheim, in Vienna, who, though not a teacher, was much consulted on eye diseases, as well as midwifery and general surgery. The peculiarity of his ophthalmic practice consisted in the use of a hook in extraction, with which, when the capsule could not with facility be opened, he *is said* to have drawn out the lens.*

About the same time Franz Siegerist invented, and published in Vienna, a description of his extraction knife, the peculiarity of which was the great length and fineness of its point, which resembled a needle, and projected far beyond the cutting portion of the instrument.† With this needle-pointed instrument he opened the capsule in passing through the anterior chamber; an operation afterwards attempted by Sir W. Adams, in this city. The advantages he ascribed to his invention were, that in addition to that just related, he was enabled to see the pupil and the greater portion of the iris when the point of his instrument had made the inner or counter punctuation; and it fixed the eye for the subsequent incision of the cornea, by its broader and hinder part. This, however, besides being liable to all the disadvantages of the over-lengthy knife of Barth, could seldom avoid pricking the side of the nose, unless the globe was turned outwards (by depressing the handle toward the temporal fossa)

* This operation will be found described in "Mohrenheim Beobachtungen verschiedener Chirurg. Vorfälle, Bd. 1. 2, 1780 und 1783."

† Siegerist, Beschreibung der Staarmessers und Gegenhalters. Vien. 1783.

more than natural; yet it had its supporters in its day. It is described at length by Jünken, in his *Augenoperationen*.

Barth had four highly distinguished pupils, Beer, Prochaska, Schmidt, and Santerelli; the former of whom, the father of modern ophthalmology, was the founder of this Clinique, and was the first special professor of diseases of the eye.

George Prochaska, the celebrated anatomist, though he neither wrote nor lectured on the organs of vision, practised much in private, as an oculist, in Vienna.

From the time of Barth, to the beginning of this century, Joseph Adam Schmidt, Professor of Surgery in the Josephinum Military Academy, did much to advance oculistic surgery in Germany. He delivered a course of lectures, and publicly performed operations on the eye, as the chief part of his course. Among his writings are several admirable publications on iritis, the operations for cataract, and diseases of the lachrymal organs, published from 1794 to 1812; and, in connexion with Himley, he edited and published the *Ophthalmologische Bibliothek*. Since his death his professorship has become a special one for ophthalmology, and has been occupied by the talented and distinguished Jäger.

To Jacob Santerelli is undoubtedly due the first performance of extraction through the upper section of the cornea. Dr. Mackenzie says, that when he was a pupil at Vienna, in 1817, "it was usual to attribute the invention of the upper section to Santerelli, and to swear in *verbo magistri* that it was a bad operation." It has been frequently claimed by others, we believe unjustly. Dr. Mackenzie continues, "Santerelli was the first (Delle Cateratte, p. 79: Forli, 1811), as far as I know, who actually made the section, not semilaterally, as Wenzel had done, but at the upper edge of the cornea. This he did at Berlin, in 1795." The method of Santerelli was to operate standing behind the patient, who was seated beneath him, similar to that of Mr. Alexander. He opened the cornea, by inserting a knife, shaped like a broad-shouldered lancet, into the anterior

chamber, through its upper edge, acting in this manner like a wedge, and not giving the clean incision made by dividing it from side to side. Dr. Mackenzie doubts, (and it appears to us with great justice), whether he could in this way divide more than a quarter, or, at most, a third of the circle of the cornea; yet both Rosas and Jünken state, that he fairly opened the upper half of the cornea. The latter of these authors adds, that he latterly abandoned this method, and made the under incision. His work was first published in Vienna, in 1795.*

George Joseph Beer was for many years the assistant of Barth. He published his first essays in 1791, and soon acquired high renown as a writer, an operator, and an instructor. He commenced as a private teacher on the eye about the year 1798, and from thence to 1815 he was, with the unanimous consent of the profession, allowed to be the most esteemed writer of his day; indeed he may be said to have been the founder of the present improved practice of ophthalmic surgery, both in Europe and America. He was the first systematic arranger of eye diseases; and had his larger works been translated into our language, they would have robbed many a scribbler and so-called oculist of his borrowed plumes. Beer was a man whose observant eye, superior talents, and high literary and scientific attainments, would have raised him to eminence in any walk of life. He was a good anatomist, both human and comparative, and his preparations of the eye, made for demonstration, have been often detailed to us, by his pupils, as some of the most beautiful specimens of recent anatomy they had ever witnessed. It was, and still is this superior education, this general high scientific character of the German professors of ophthalmology, that first rescued that important art from the hands of the itinerant quacks and uninstructed empirics, styled *oculists*, of the last century. "Thus," says the author of a notice of the Medical School of Vienna, in 1821, "it is necessary accurately to dis-

* Santerelli recherche, per facilitare il cateterismo e l'estrazione della Cataratta. It is not noticed in Engelman.

tinguish those practitioners who have, of late years, applied themselves in Germany to the diseases of the eye, from the class who are termed oculists, whether of that or of any other country. The latter would wish to divide surgery into a number of trades, of which they would monopolize one. The former have not confined themselves to the eye, but all of them have come prepared to the study of that organ, by an intimate acquaintance with medical science in general; and many of them have distinguished themselves by their labours in anatomy, and their improvements in the practice of surgery." Of such men (added to those already enumerated) were Richter, Himly, Elbe, Rust, Benedict, Quadri, Gräfe, Plenk, Buchorn, Reisinger, &c.; while the names of Jäger, Rosas, Jünken, Fisher, Ammon, Walther, Langenbeck, Chilius, Weller, Peringer, and others, of the present school, ably retain the character earned by their predecessors.*

The writings and discoveries of Beer are too well known to require comment or enumeration here. From a little read, but interesting pamphlet of his, published in 1813, (*Die Geschichte der Augenheilkunde*), we are first informed of the erection of the Ophthalmic Clinique in Vienna. In it, he says, that after fourteen years private instruction in his art, he laid the design of forming a special Clinique for this purpose before the emperor. This design was approved of, and a portion of the Imperial Hospital set apart for treating and teaching eye diseases, "so that," he writes, "I actually ascended the clinical pulpit on the 28th of April, 1812, as Extraordinary Professor of Diseases of the Eye to the high school of this place." Being then but Extraordinary Professor, the students of the university were not compelled to attend his lectures; but men from every part of Europe soon flocked round the great teacher to profit by

* Dr. Sichel, of Paris, is also of this school, being a German, educated in the Ophthalmic Clinique of Vienna; he was the pupil, and afterwards the assistant of Jäger,

his instructions, and take advantage of the many opportunities his position afforded.* In 1815, the Extraordinary was converted into an Ordinary professorship of practical ophthalmology, attendance on which then became a compulsory part of medical education; and a paid assistant, who resides in the hospital, was attached to the Clinique.

Among the many pupils of Beer, five in particular distinguished themselves, Jäger, Rosas, Benedict, Bringolf, and Dr. Fisher, the venerable professor of ophthalmology at Prague.

Dr. Frederick Jäger, the son of a physician of Mergentheim, in Wurtemberg, was the favourite pupil, and afterwards the assistant of Beer. He resided in Vienna in the former capacity in 1808, and on taking his Doctor's degree at Landshut,† in the same year, he wrote an inaugural dissertation on "The Diagnosis of Arthritic and Syphilitic Inflammation of the Eye." From 1808 to 1812 he continued the assistant of the great Austrian oculist, who speaks thus of him in the little work already quoted, *Geschichte der Augenheilkunde*; "Since then," i. e. from 1808 to 1812, "he was uninterruptedly my assistant, and so advantageously distinguished himself by his diligent application, that he not only (under my direction) undertook, in private, the extraction of a cataract, but also publicly in the clinical school, operated successfully by means of the same operation on both eyes of John Haas, a man aged 55, on the 19th of June, 1812." In the same year, Jäger published his "*Dissertatio de Keratonyxidis Usu*,"‡ in which he records the results, and descants upon the merits of nineteen operations for cataract by keratonixis. On the death of J. A. Schmidt, Dr. F. Jäger was appointed special Professor of Ophthalmology to the Josephinum Aca-

* Wardrop and Dr. Mackenzie were both pupils of Beer.

† The university of Landshut was transferred to Munich in 1826.

‡ *Dissertatio de Keratonyxidis usu, quam pro facultate praxeos medicæ in ditio-nibus Austriacis exercendæ, rite obtinenda in antiquissima ac celeberrima Universitate Vindobonensi disquisitioni publicæ submittit, Fridericus Jäger, 1812. Vienna, 8vo.*

demy, a place he still continues to hold ; and, as an operator has obtained nearly the same exalted reputation enjoyed by his master ; and his private teaching is at present one of the greatest attractions in Vienna.*

His clinique is on the same plan as that of the Grand Civil Hospital ; it contains two wards, with eleven male and eleven female beds ; the students are those educating for medical officers of the Austrian army ; and the patients, soldiers and their families. Connected with this is a large *ambulatorium*, or dispensary, for out patients, or indeed all who choose to come ; and around the Professor's chair will be found medical men of nearly every country in Europe, as well as America, attracted by the splendour of his operations, and attached to him by the unvariable kindness, and winning urbanity of his manner. The business is conducted on the general principle of the other German clinics ; it commences at eleven and ends at one o'clock. Between the wards is a spacious hall ; into this the patient who is to be examined is conducted by a pupil, called *ordinarius*, in whose charge he is placed, who first gives the history of the case (in German), and then proceeds with the subjective symptoms, and lastly, the description of the present appearances. He is then questioned on the case by the Professor, and concludes with the diagnosis, prognosis, and therapea. The Professor then generally makes some observations on the peculiarity of each example of disease, as it presents itself in the persons so examined.

The second hour is usually occupied with operations. Of Jäger's modes of operating, and the principles of his treatment, we shall speak hereafter. On the whole, we may say, that the latter is very similar to that pursued in the London Ophthalmic Hospital. Finally, those patients not able to be removed from their beds, are visited.

Occasionally the Professor holds a public examination of all

* Jäger subsequently became the son-in-law of Beer, whose library, preparations, and instruments he thus inherited. His elder brother, Dr. Carl Jäger, a man of much learning, also practises as an oculist in Vienna.

the pupils in his class, and his assistant gives a course of public lectures on the operative surgery of the eye, twice a week.

In the year 1839, the number of patients treated in this clinique was 128 ; these were all cases of interest and importance, and were chosen from out of the wards of the entire hospital.

The number treated in the ambulatorium was 238. The following table exhibits the number and variety of cataracts, with the results, treated in the Josephinum Academy in the above year :

	Admitted.	Cured.	Relieved.
Lenticular,	52	45	7
Capsular,	9	4	5
Capsulo-Lenticular, . . .	10	10	0
Secondary,	1	1	0
Total,	72	60	12

Cataract and amaurosis are diseases of very frequent occurrence in Vienna, as also arthritic affections of the eyes, particularly arthritic iritis, whereas the syphilitic form of that disease is very rare in comparison with other countries, but especially in Great Britain, only three cases of it having presented in the Josephinum Eye Clinique in the last year.*

During the warm season, severe ophthalmias predominate more than with us, and many of them run rapidly into the purulent, or even the Egyptian form, particularly among the soldiery. The hot winds laden with quantities of fine dust, very similar to that in Egypt and other parts of the Levant, which prevail during the summer months, and are so annoying upon the Glacis and in the Vorstadt of this great city, are, no doubt, a fruitful source of ophthalmia to the Viennese. Chronic keratitis, the *pannus* of continental writers, is also very common here,

* There are several hundred persons treated in the syphilitic wards of the great hospital of Vienna yearly, both male and female, with every variety of venereal disease, *without* mercury ; and so rarely and sparingly is this remedy employed in private practice, that it can be fairly said the Austrian treatment of this malady is *non mercurial* ; yet secondary affections, particularly those of the eye are fewer than in other countries.

and has received of late years much attention from the German oculists.*

It is matter of regret that a man possessing the experience and opportunities of Dr. Jäger, has not favoured the Profession with more of his observations and opinions ; for, with the exception of some scattered articles in Journals and medical periodicals, he wrote nothing from the date of the work already quoted at page 261, till last year, when, owing to the great ravages of the so-styled Egyptian ophthalmia in the Austrian army, he was called upon by the Government to draw up a

* The treatment of pannus, or chronic cornitis, by producing a new inflammation through inoculation with the matter of *ophthalmia neonatorum*, though almost unknown in these countries, has been employed for many years in Germany ; and has lately attracted particular attention from its mention and recommendation in the work of Dr. J. F. Peringer, oculist to the hospital at Grätz, "*Die Blennorrhæ am Menschenauge ;*" and in particular in the chapter "*Die Heilung des Pannus durch Einimpfung der Ophthalmoblennorrhæ.*"

Prior to the appearance of this very laborious work, so admirable in its symptomatology, our attention was directed to the subject by Professor Jäger, in whose clinique we had an opportunity of observing two cases so treated in November last.

Both of these patients, one an officer, æt. 24, the other a soldier, æt. 27, had been afflicted with this most intractable malady, in its most severe form, for many months, one, indeed, for years. In both, the cornea strongly resembled a piece of red cloth, being highly vascular to the naked eye ; and numerous other fine vessels becoming perceptible on viewing it with a moderate lens ; the intervals between the vessels, as seen with the lens, being opaque, greyish, and similar to ground glass, and the whole surface apparently raised above its normal height. In both there was considerable conjunctivitis, some photophobia and epiphora, but no abnormal discharge ; both eyes of these persons were similarly affected, and it is needless to add, that they were unable to "find their way," or pursue their occupations. They were of scrofulous habits, their general health much impaired, and the usual remedies had been resorted to without any permanent improvement. Upon the 19th of November, Jäger inoculated one of these cases, by placing a camel's hair pencil containing some of the matter of *ophthalmia neonatorum*, previously moistened over the steam of warm water, between the eyelids. In this instance a glutinous viscid mucous discharge was perceptible upon the ciliæ and palpebral margin within one hour and a half from the time of the application of the matter which, from its minuteness and solubility, could not have acted as a foreign body.

memoir on that subject, shortly before his visit to the Crown Prince of Hanover. (*Die Egyptische Augen-Entzündung (opthalmica Egyptica)—Zufolge allerhöchsten Auftrags—von Frederick Jüger.*) A passing notice of this little work may not be out of place here; for although the opinions therein advocated have not been noticed in the English periodicals, they have given rise to much discussion in Germany.

The outline of the history, and, in particular, the enumeration of the symptoms of this disease, are detailed with remarkable acuteness. He admits, that, in general, the latter are those

This discharge continued to increase without any other symptom, till exactly the twenty-fourth hour from the date of the inoculation, when the pain, swelling, and other symptoms of purulent ophthalmia set in. On visiting him at the thirty-sixth hour, in addition to the above, he had increased lachrymation, great intolerance of light, the cilæ gathered into packets, and clotted with the discharge, which was then profuse and muco-purulent, and the superior palpebræ were swollen, œdematous, and of a purplish-red colour, deepening towards their margins, which overhung the lower ones. On opening the lids, the conjunctiva scleroticæ was redder than before, swelled, and slightly ecchemosed, but *not so florid* as is usual in cases of common ophthalmia; the cornea was sunk, muddy, and of a *lighter colour* than prior to the application of the infection, and flocculi of whitish lymphic matter floated out on the discharge. Leeches, purging, fomentations, confinement to bed in a modified light, and the other usual antiphlogistic remedies were had recourse to, and on the ecchemosis increasing, incisions were made in it with the scissors. To transcribe the notes of the progress of this and the second case, similarly treated, and attended with very similar symptoms, would prolong this paper to an inconvenient length. In both instances, the inflammation ran very high, and very active measures had to be resorted to. In one, ulceration of the cornea took place. Finally, however, i. e. at the end of about ten weeks, after frequent minor attacks of fresh inflammation, they recovered, with slight opacity of the cornea, and left the hospital with very useful vision; and although much broken in health, free from pain in the eyes.

To Jüger is undoubtedly due the introduction of this mode of treating pannus, as well as old standing cases of general scrofulous vascularity of the conjunctiva, covering both lids and bulb. He stated to us, that he first tried it thirty years ago, when assistant to Beer, (but without his knowledge), and has cured hundreds by it. He says that he has always found the newly-produced disease is never so violent when another affection has possession (as he terms it) of the organ.

Unless it be homeopathically, the *modus operandi* of this method of cure is, no

of the common catarrhal ophthalmia in the first instance, on the basis of which (as he expresses it) the Egyptian form develops itself. The earliest appearances, he says, are, that the conjunctiva palpebrarum *on the border of the tarsus*, loses its healthy aspect, its transparency, and its pale pink colour, becomes dry; the mibomian secretion ceases, it then shows a deep and uniform redness—the redness of inflammation—still unattended with secretion of any kind; and instead of the healthy shining appearance,* it becomes opaque, rough, like muffed, or slightly ground glass. If in a few hours the lids be everted, the conjunctiva

doubt, very difficult to explain; but certain it is, that in a great number of cases when the purulent ophthalmia ceases, the previously existing opacity and vascularity of the cornea clears off along with it. Can it be that the chemosis which forms round the margin of the cornea, and which would, in all probability, destroy that structure in an eye previously healthy, acts only so far upon the diseased one (by cutting off the abnormal supply of blood sent into it through the enlarged vessels) that it retains a sufficiency of vitality to preserve it till the inflammation has subsided; and then, that the process of adhesion and lymph deposit round the cornea prevents a recurrence of the old affection, when the produced one has been removed?

Dr. Peringer has related a number of very interesting cases, illustrative of the foregoing remarks, well worth the perusal of the oculist. In one, he had to inoculate three times before inflammation took place; first, upon the 20th of June, with freshly taken infection. No alteration taking place, he again applied it on the 23rd and 25th, but without effect. Finally, however, on the 26th, he made a third trial with the very same matter, a portion of that originally taken from a new-born infant, and succeeded. In this case the disease showed itself fully in thirty-six hours, and in forty-eight it was perfectly established.

This remedy is no doubt a severe one; but there are few persons afflicted with this disease in an aggravated form, who would not submit to it.

It will be advisable to procure the infection, if possible, from a case of pure ophthalmia neonatorum, and not that arising from gonorrhœa.

The German writers recognize two forms of pannus, the *dünne augenfell* (pannus tenuis, seu membranaceus); and the *dicke oder fleischige augenfell*, (pannus carnosus, seu sarcomatosus).

* A good method of examining this appearance of the tarsal margin in the healthy eye, is to look closely into a piece of highly polished concave speculum metal.

lining them will exhibit a bluish-red, sometimes a dark purple colour. At the same time the membrane itself swells, and the papillary bodies upon its surface (*corpora papillaria*) become more developed, hypertrophied, of a firm round tightly-compressed form, and stand out prominently from the tunic on which they are placed, resembling very much the granulations in a wound, visibly raised above the surface.

The absence of distinct stages and the other symptoms he mentions are those remarked by most writers on the subject, but upon this *early* development and granular appearance of this villous layer of the conjunctiva (the *Papillarkörper*), it is that he diagnoses *the Egyptian from all other ophthalmias*.

The Professor coincides with the opinions we have already expressed, as to the predisposing and exciting causes of this disease; at least as it presented itself to us in Egypt.* Among the former of these, he mentions excess of light, wind, sand, smoke, or ammoniacal vapours carried in the atmosphere, mechanical irritants, over use of the eye, excess in vinous liquors,† bad food, suppressed perspiration, and the previous existence of catarrhal disease, whether of an endemic or epidemic nature. To these causes, which are those that likewise produce the common catarrhal ophthalmia, he adds *miasma* and *contagion*, as productive of the Egyptian affection. We have already remarked elsewhere upon the probability of this miasma arising from the noxious exhalations that take place on the fall of the Nile, and at the season of the Khumáscén winds. With respect to the contagion, he does not consider it at all necessary for the matter to be applied to the eye, but thinks that it is volatile, i. e. that the discharge, especially when it becomes fœtid, gives off its infecting particles, that first affect the tarsal margin of the lids, and produce this already described morbid growth from

* Narrative of a Voyage to Madeira and the Mediterranean, vol. i. p. 330.

† The Austrian soldiery are particularly liable to the Egyptian ophthalmia on the first use of the newly-made country wines. This was also the opinion of Beer.

the conjunctiva. Dr. Jäger has several times pointed out this early granular appearance to us, and the remarkable round distinct form that these bodies subsequently present in the after stages of the disease. But we must confess, that although we have had opportunities of examining many hundreds of Egyptians so affected, both at Alexandria and in the hospital at Cairo, it did not seem to us that these *papillarkörper* were at all necessary to constitute true Egyptian ophthalmia; or that the subsequent granulations differed in any way from those that result from other causes.* Dr. Rigler is at present the assistant in the Josephinum Eye Clinique.

On the death of Beer, Dr. Antony Elden Von Rosas, a Hungarian physician, succeeded him in the Chair of Ophthalmic Surgery in the University, and holds his clinique from ten to twelve o'clock in the great general hospital—*K. K. Allgemeine Krankenhaus*. As this clinique has been already described in the days of its venerable founder, a brief notice of it will here suffice.† It consists of a well-arranged auditorium, where lectures are delivered and operations performed, and two wards, containing twenty beds, most admirably fitted up for the comfort of persons labouring under eye diseases. The annual reception of patients into this clinique is about 150, all interesting cases, chosen by the Professor's assistant, from the wards of the entire hospital, which contains 2,500 patients, and occupies the largest space of ground of any such institution in Europe. With this clinique is also united an ambulatorium, which affords relief to above one thousand persons yearly. The only difference in the routine of business here is, that the language spoken is Latin, and the *ordinarius* proceeds first with the objective, and then with the subjective symptoms; and immediately before each

* A very severe critique appeared on this portion of his work, in the "*Österreichische Medizinische Jahrbücher*" of last autumn, edited by Professor Rosas.

† See the *Quarterly Journal of Foreign Medicine and Surgery*, vol. i. 1818 and 1819.

operation he reads aloud a Latin dissertation upon the case, its history, the objects of the operation, and probable result. On the whole, it is more methodical than that in the Josephinum, and perhaps this, added to the pains taken to instruct in the general treatment of patients, make this establishment better adapted to the improvement of students, whereas that of Jäger is better suited to the already initiated, and the more advanced oculist. After the ordinary duties of the clinique in the theatre are ended, the Professor visits those unable to be removed from their ward, where most valuable information can be gleaned from his observations. Without drawing invidious distinctions between the relative merits of these two great men, it may, perhaps, be near the truth to say, that while the operations of Jäger are the most splendid exhibitions of eye surgery in Europe, the therapea (treatment) of Rosas is superior ; and, as far as the history of his science goes, the latter is said to be the more learned of the two.

In this theatre stands the bust of the Emperor Francis I., "Patris Patriæ," under whose auspices, and that of Andreas Von Stift, the Protomedicus, it was erected in 1816 ; and around the walls are pictures of Barth, Prochaksa, Rust, T. Sömmerring, Richter, Schmidt, Fisher, Quadri of Bologna, Philip Von Walter of Munich, Graefe, Jünken, Von Ammon, and our distinguished countryman, Dr. Mackenzie.

Attached to this clinique is a very valuable and extensive library, chiefly composed of works upon the eye, from which books are lent out to the student or visitor, weekly, on a very small subscription.

There is a small collection of pathological specimens of the human eye, preserved in spirits, many of them made by Beer ; but one of the greatest attractions in the school of Vienna is the magnificent museum of wax preparations of the morbid eye, made by a native of the Austrian capital, and the extensive collection of eye instruments, from the very earliest period to the present day. These two are in their way *unique*.

Dr. Rosas delivers lectures in the Eye Clinique once or twice a week ; and his work, "The Handbook of the Theory and Practice of Eye Surgery," is one of the most generally read modern works upon that subject in Germany.* Strangers are always admitted, free of cost, into the Eye Clinique, both in the general hospital and the military academy.

The most advisable course to be pursued by those who visit Vienna solely for the sake of the eye practice, is to attend Rosas, from ten to half-past eleven ; then a few minutes' walk will conduct one to the school of Jäger, where he should remain till half-past twelve or one. From one to two Jäger has a public *ordination*, as it is termed, at his own house, for the reception of patients from among the middling classes, to which he generally invites strangers, but to which his private pupils always have access. Much can be learned here of his private practice ; and no one visiting Vienna but should, if possible, get access to it. We now arrive at the most attractive portion of the course, and by far the most valuable part of the education given in eye surgery—the private course of instruction in operating. This occupies the hour from two to three, daily, at the Professor's house, when eyes can be procured, and for this a stated sum is required. He takes but six pupils at a time, and these are almost invariably foreigners, either private individuals, or persons sent by their governments or their universities.† This course lasts generally about three months. Of the advantages it offers, as well as Jäger's and Rosas' modes of operating, we purpose to devote another chapter. Enough is it for the present to say, that there is no such inducement held out to visit any other continental school ; and of its teacher we may justly say, in the words of a late writer on the subject, "*und was Allen bekant ist, mag ge-*

* *Handbuch der theoretischen und practischen Augenheilkunde*, 3 Bdl., 1830. Also, an abridgment, in one vol., *Lehre von den Augenkrankheiten*, 1834, Vienna.

† Among the oculists of the Viennese school practising in England, are W. T. Wharton, Jones, and Dr. Franz.

nügen, dass Niemand seinen Unterricht ohne Befriedigung genossen hat.

Private courses on operative ophthalmology are likewise given occasionally by Dr. Rosas, and by the assistants of both Professors.

That of Dr. Gubz, the assistant in the general hospital, should not be neglected, as he gives some most interesting information on the history of his art, illustrative of the splendid collection of instruments before spoken of.

We have thus briefly recorded the history and present state of the science of eye surgery, and conclude for the present with a short notice of the ophthalmic education in Austria.

Every student in medicine, intending to take out a degree as Doctor of Medicine or Surgery, must attend the ophthalmic clinique, during the first six months of his fifth year, at the end of which period he is examined by the Professor as to his proficiency.

Again, at his second final examination (*Zweyte Prüfung*), his knowledge of eye diseases is most strictly inquired into.

Every purely surgical student intending to become a *Civil und Landwundarzt*, or a general practitioner, must attend to this branch of study during the second six months of his third year, and is again examined upon it at his first final examination.

In order, however, to perform operations on the eye, and practise this branch specially, it is necessary that an additional year (after the degree has been obtained from the University) be spent in attendance upon the eye clinique; at the end of which, some public operations performed in the presence of the Professor, are required as a test of the person's right to practise.

These oculists, styled *Land und Stadt Augenärztes*, are distributed throughout the whole of the empire, and no town of any eminence is without one, who is obliged to administer relief, both with medicine and advice to the poor, in all cases of eye diseases, and also to furnish the Board of Medical Direction with a monthly report of the progress of such among the people. The previous length of this paper prevents us giving an account

of the admirable institutions for the blind in Vienna, and the statistics of those so affected in the Austrian empire. For further information on that subject, we must refer our readers to our forthcoming publication on the Medical Institutions of that country.*

ART. X.—*Observations on the Connexion between Delirium and certain States of the Heart in Fever, with Cases.*

By ALFRED HUDSON, M. B., T.C.D., Physician to the Navan Fever Hospital.

DURING the past year (1840) an epidemic of contagious fever prevailed in this town and neighbourhood, to an extent and fatality quite unknown at any period since the great epidemic of 1817 and 1818. Its general characters were those of a putrid spotted fever, with prominent nervous symptoms, the chest and abdomen being, for the most part, little engaged, and delirium of every variety, subsultus, aphonia, dysphagia, and involuntary evacuations being present, most or all of them in all severe cases. In such a form of disease we had but little recourse to any measures of a depletory kind, while wine and opium were frequently employed to a considerable extent, and, upon the whole, with satisfactory results. Occasionally, however, it was otherwise, and, after a little while, low muttering changed into furious delirium; and one or other of these states sometimes passed into coma, after the exhibition of a small dose of opium. The occurrence of these untoward results, in several instances, led me to institute some inquiries into the conditions under which they took place, and also into the most certain indications for the employment of these two great remedial measures.

The results of these, after more than a year's experience of their correctness, I now offer to the readers of this Journal.

With reference to wine, I derived the greatest possible assistance from Dr. Stokes's valuable researches in the 43rd Number of this Journal; and my observations of the state of the

* See Advertisement in this Number.